THE

VINE AND CIVILISATION.

MISSOURI BOTANICAL GARDEN
HENRY SHAW PAPERS

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AND

CIVILISATION.

FROM VARIOUS SOURCES.

BY

HENRY SHAW.

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THE GRAPE-VINE.

Vitis. (*Linn.*) The GRAPE-VINE of the botanical order *Vitaceæ*. The Latins derived the name from the Celtic. There are proofs that the Vine existed, in prehistoric ages, both in Europe and Asia. It grows spontaneously in Caboul, Cashmere, in Southern Europe, in Arminia, and south of the Caucasus and of the Caspian Sea. On the continent of North America numerous species are found growing in a wild state, as described by Michaux, Raffinesque, and Asa Gray.

Vitis vinifera. (*Linn.*) The WINE GRAPE, which follows the steps of civilized man, is rarely found in a wild state in Europe, and never in America.

Of the vine, its fruit, and the wine made from it, the writer proposes to give a brief history, drawn from various authorities.

The vine is universally known for its fruit, and for producing the first liquor of the world; a liquor, notwithstanding all that is said of its dangerous qualities, that is yet eagerly drank by all who can procure it, and preferred before all others by those who are unlimited in their means and choice. The Grape is, among fruits, what wheat is among cereals, or the potato among farinaceous roots; and like them, in every country where it will grow, is cultivated with pre-eminent care.

The use of the vine is from remote antiquity, and often mentioned in Holy Writ. Noah planted a vineyard after the deluge, and made wine from the grapes (Gen. ix. 20, 21). The vine was known to the Egyptians and is represented on their monuments (as the writer has seen it pictured in the tombs of the kings at Thebes, in Upper Egypt, of a date many centuries before the Christian era). The Israelites, in their journey through the wilderness, longed for the vines of Egypt (Numb. xx. 5).

Vineyards abounded in Canaan when the Israelites took possession of it, and in Syria at the present day clusters weighing ten and twelve pounds have been gathered. Frequent allusions are made in the Bible to vineyards, to vine-dressers, to rejoicings at the vintage, the gathering and gleaning of the grapes, the treading of the grapes, the wine-presses and the wine-vats—all indicating the important place which the vine occupied among the productions of Palestine. Israel is represented as a vine brought from Egypt and planted by the Lord. Dwelling under the vine and fig-tree is an emblem of peace and tranquility (Zac. iii. 10).

In Grecian mythology Bacchus, to whom more temples have been erected than to any other deity, is said in ancient times to have brought the vine from India, where the cultivation in modern times has become neglected. The vine, a migratory climber, which has run round the globe, twined high in man's affections, and made surprising inroads on his pocket, has several disputed birthplaces. According to the legends, Africa owed it to Osiris, and Europe to Bacchus. The Jews claimed it for the slopes of Mount Hebron. Its birthplace was perhaps that same Persian paradise that produced the fig, the peach, and the apricot.

Alexander the Great found the wild vine on the banks of

the Hydaspes, in northern India. The mountains of Ferdistan, in Persia, probably supplied the vines which were first cultivated by man; the wine of Shirez is made from vines growing on those hills. Homer mentions wines which may be presumed were of a sweet taste from the epithets applied to their descriptions. Honey and various other substances were mixed with their wines. The ancients exposed their wines to the action of smoke, in a sort of kiln, called a fumarium, which thickened and matured them, requiring some sort of preparation to preserve them from acidity. Common wines in Greece are still treated by mixtures to preserve them, as experienced by the writer (H. S.) When travelling in Greece some forty years ago, he found the wine of a resinous taste, very annoying to those unaccustomed to it.

The Malmsey of the present day owes its origin to the Morea, a country of Greece known a few hundred years ago as Malvasia. The most renowned of the ancient wines among the Romans was the Falernian, which grew upon the volcanic Campania, near Naples, where also the Massic was produced. The Falernian was a product of the hill-side. It was rough, of a dark colour, and strong. It was drunk at ten years old, when it was mellow, and had imbibed somewhat of a bitter taste. Hence Martial—

"Crown the deathless Falernian, my boy!
Draw the quincunx* from out the cask—
Of the gods who can heighten the joy?
'Tis for Cæsar five bumpers I ask."

The price of Falernian was high; Calenian and Formian as well, and were products of the vine in the time of Augustus Cæsar; as was the Cœcuban, so named from the city of Cœcu-

* The quincunx referred to the five letters in Cæsar's name.

bum, where the vineyards were situated on the Palus, or low ground, near Amycle. Falernian was sometimes mixed with Chian wine (from Chios) to soften it. These wines were drank after being cooled in snow. They were brought to the table in flasks uncorked, with a little fine oil in the necks to exclude the air. Sea-water boiled was demanded, a small quantity of which was mixed with the wine. The ancients noted the years of celebrated growths, as that of the Opimian year, or the year of Rome 632, when Opimus was consul. It was in high esteem a century afterwards. The Romans marked their Amphoræ or wine vessels (containing about seven gallons and a pint, modern measure) with the consul's name, which indicated the year of the vintage. Many Amphoræ now exist in the Museums of Europe with the legible mark of the vintage.

Other famous growths among the Romans were the Setine, the favourite wine of Augustus Cæsar, said to be lighter than the Falernian, and supposed to possess medicinal virtues. Surrentine was a wine commended by the Emperor Caligula. It was made at Surrentum, and was little inferior to Falernian or Massic. This wine was described as a mild wine, less affecting the head, according to Pliny, than some other kinds. Various hills in Italy and Sicily produced wine celebrated by Roman poets and historians, as the Alban, Faudine, Mamertine, and others. The wine of the Sabine Farm is immortalized by Horace, more through its connection with genius than any intrinsic excellence of its own. The vineyard was situated where two mountains opened and formed a secluded valley, the sides of which faced east and west respectively. The stream from the Fount of Bandusia ran through the fields of the farm. Horace mentions having on this farm to offer his guests some five-year old wine of Minturnæ, grown near Sinuessa. The poet had also some Marsian wine, the best of his stock, of the age of the Marsian

war, or about sixty-five years before Christ. Other wines of Italy, the names of which remain, are the Pucine, grown on the shores of the Adriatic, upon a stony hill-side. This wine is said to have prolonged the life of the Empress Julia Augusta to eighty-two years.

Pliny states that the number of wines in esteem in his time was fifty-four Italian, and twenty-six foreign species.

The age of the wine of the Sabine Farm is stated by Horace, and that it was used to cheer the ancients much in the same social domestic manner as the temperate among the moderns use it at present, when winter's chill blasts prevail.

> **" Heap up the fire, drive off the cold,**
> **Bring Sabine wine of four years old,**
> **And leave the gods our cares."** [HOR.

Some Roman wines are mentioned as twenty-four years old, and some as sixty-five. The vessels out of which they drank the wine were various, and some exceedingly rare, rich and costly, ornamented with amber, gold, and gems. Some were made in Egypt, some at Surrentum, and the flasks they used were made in Syria. Not only in libations to the gods, but on all occasions they seem to have been careful to adopt for their wine-cups the most costly material. The Greeks mingled water with their wine at public entertainments, by a law of Amphytrion, revived by Solon, in order that people might return home sober. The Jews were ordered to use pure, unmixed wine in their sacrifices, and the same point was observed in the sacrifices of Numa at Rome.

The poets supply many passages that point to the characteristics of the ancient wines, and make allusions to them in passages of great beauty, and thus we learn that they perfumed them, and that their fragrance was the product of art, and not the natural bouquet of pure wine.

The wines of the moderns, there is no doubt, are much more perfect than those of the ancients, as far as can be discovered by anything that has reached the present time. Brillat Savarin, in his "Physiologie du Goût," places taste among the sciences; which, not like Minerva, that sprang all-armed from the brain of Jupiter, but as a daughter of Time, is formed gradually; so that modern taste, as regards wine, is an amelioration on the taste of the ancients. Taste for good wine, like music and painting, is not attained without cultivation and long experience, for the flavour and aroma of the finest products of the Garonne and the Rhine would be wasted on the palates of northern peasants. As to what the poets said in regard to wine, goes for nothing as to flavour. Shakspeare may extol Sherry for the most exquisite; Redi, Montepulcianæ; Prior, Claret; Boileau, Burgundy; Crabbe, Port; and Moore, sparkling Champagne; but this would decide nothing a thousand years hence about the nature or flavour of the wine, and each kind cannot be the best. The properties of the ancient wines, celebrated by the poets, is a sealed book to us for ever; and every rational person must admit that to judge modern by the ancient wines is an absurdity.

Some interesting facts are connected with the geographical distribution of the vine. It is not an inhabitant of torrid climates; its juice possesses exhilarating rather than cooling qualities. The demand for wine does not arise from any natural want, and in hot climates indeed it cannot be enjoyed with the same freedom as in those parts where it is indigenous. Montesquieu said that the law of Mahomet prohibiting wine was a law of the climate of Arabia.

The cultivation of the vine succeeds only in those climates where the annual mean temperature is between 50 and 63 degrees, or the mean temperature may be as low as 48 degrees,

provided the summer heat rises to the mean of 68 degrees. In the Old World these conditions are found to exist as far north as 50 degrees, and in the New World not much beyond 40 degrees. In both hemispheres the profitable culture of the plant ceases within 30 degrees of the equator, unless in elevated situations, or in insular localities tempered by the sea breeze. Thus the region of vineyards occupies a band of about 20 degrees in breadth in the Old World, and a little more than half that breadth in America. In the southern hemisphere, the Cape of Good Hope just falls within the latitude occupied by the Grape.

WINE AND VINEYARDS.

The vine is found wild in many parts of Europe, Asia, and America. Its culture is successfully carried on in almost every part of the United States from native species improved, and in California from the *Vitis vinifera*, or European species, introduced into that country by the early Spanish colonists. Good wine has been made from both species in Chili. The vine has also been cultivated in some places in Mexico, but has not succeeded in Brazil. Champlain, the colonizer of Canada, has predicted with great satisfaction its use to the future inhabitants, from observing the spontaneous growth of the wild vines in that northern country.

In India six species or varieties are cultivated in the Deccan, in the 17th to the 19th parallel of latitude, at an elevation of 1,500 to 1,800 feet above the level of the sea; the temperature in the hottest months being 81 to 85 degrees, and in the coldest months 66 to 71 degrees. All the species are cultivated for the table, the natives of India not using wine; four to

twelve pounds of grapes selling for half a rupee, or about twenty cents.

The attempt to introduce the vine into Normandy, with a view to supply that part of France with wine, has never succeeded. Wine was cultivated in England in the middle ages by the monastic orders, and wine made from the grapes, but of an inferior quality, and was only abandoned when a superior article could with facility be imported from the south of Europe. Artificial heat was not applied to the production of grapes until the beginning of the last century, and are continued to be so produced for table use in the highest state of perfection both in England and in the Northern States. Grapes for the dessert are nowhere grown of so fine and delicate a quality as in hot-houses of England and the North, and when sold bring two or three times as much as those imported from Malaga or California. The same may be said of the pineapple, for the grape and the pineapple are the only fruit improved in delicacy and flavour by being cultivated under glass.

Wine merchants and dealers, in the wine countries of Europe, generally announce the wines of certain years to be of superior quality, for to wines of particular and favourable years higher prices are affixed than to those of ordinary growths. This superior quality is attained by reason of a peculiarly favourable season, when, the grape being brought to the highest state of perfection, the produce possesses qualities which are not attained in average seasons, so that in some particular seasons the same vineyard produces wine worth two or three times its usual value, according as the season has been more or less propitious. Various circumstances of temperature and weather concur to produce this superiority; dry autumns are always essential to the production of good wine. The year 1811, as the writer well recollects, was remarkable for the most bril-

liant comet ever seen since that year; it also happened to be dry and a very fine wine year, so that wines of the comet year of 1811 were long after celebrated for their superior quality.

Several grades of wine are made from the same vineyard and same season. The first, or "premier cru," is made from grapes selected as of the finest flavour, and grown in the most favourable aspect. The second and third *cru* are from grapes of lower grade. The quality called Piquette in France is made from the refuse that remains in the vats after the wine is drawn off, and is increased in quantity by the addition of water. Piquette is never exported, but consumed by the labouring people of the country. It is requisite to fill up the casks frequently during the first few months. The wine is racked off twice a year, in March and April.

The wines used in England in former times were those of Alsace, Gascony, Rouen, and Rochelle. Gascony and Guyenne wines in the time of Henry VIII. were sold at eighteen pence the gallon, and Malmsey, Romany, Sack (Sherry), and sweet wines at twelve pence the pint, and were drank in England in 1449. The wine of Tyre, the Helbon of Ezekiel, made near Damascus, was imported in the reign of Richard III. by Venetian ships, which were bound to bring with each cask ten yews for bows, yew-trees abounding in the Levant.

Acidity in wine was formerly corrected in England by the addition of quick-lime, which falls to the bottom of the cask. This furnishes a clue to Falstaff's observation, that there was "lime in the sack," which was a hit at the landlord, as much as to say his wine was worth little, having its acidity thus disguised.

France inherited the vine from Greece and Italy. Vessels from Phocia landed colonists on the coast of Provence. These navigators founded Marseilles, and planted the first vines cul-

tivated in Gaul, and when Cæsar conquered Gaul he found vineyards in many places, and noted that the grapes of Marseilles and of the Narbonne were nothing inferior to those of Greece and Italy.

In 316 Saint Martin of Tours brought to the inhabitants of the banks of the Loire the Gospels and the Vine. About the middle of the same century Ausonius praises the oysters found on the shores of Medoc, a bivalve that he says was as highly esteemed at the table of the Emperors as the excellent wine that came from Bordigala or Bordeaux. Ten centuries later, Pope Clement, when the Holy See was at Avignon, had his vineyard at Medoc; and at this day a few old amateurs of claret, at the residence Locust and Seventh streets, highly relish Château Pape Clement—a light claret of fine flavour and aroma—no one of whom would think of protesting against this Pope's judgment in wine, whatever his dogmas on theology might be. Brillat Savarin, in his "Physiologie du Goût," says "that wine, the most lovely of all drinkables, we owe to Noah, who planted the vine, and to Bacchus, and dates from the infancy of the world; and that wine drank in moderation increases the energy of all the human faculties. The heart, the brain, the organs of secretion, and the muscular system, acquire by its use an augmented vitality."

THE VINE AND CIVILIZATION.

Professor J. Babrius lectured in 1840 to certain students of Bordeaux, on the geography, the history and the effects of the cultivation of the vine, and the consumption of wine, on the civilization of man. As Babrius was a learned man, of great research and enthusiasm on the subject he so ardently advo-

cated, I presume a translation may be acceptable to my readers, in an abbreviated form, of a few of his ideas so eloquently expressed in French. The theory is that wine-producing countries being the most favoured of God's creation, and wine-drinkers the most temperate of men, the cause of the vine and civilization is so clearly advocated, that an admiring student of Bordeaux honours the professor as among the greatest benefactors of mankind. Of the private life of Babrius little is known previous to his residence in France, except that he was born near Saragossa, in Spain; his father was an officer, who died in the war of independence, and left his son to the care of an uncle, a Canon of Notre Dame del Pilar, who for his education placed him with the Jesuits at Calatayud. After a few years of study, and giving proof of the rare faculties that God had endowed him with, he declared to his astonished teachers that he felt more inclined to handle the sword of his father than wear the priestly robes of his uncle; so as an under-lieutenant he joined a Spanish regiment. Espartero, the friend of his father, became his protector, and at the age of twenty-six he was promoted, and, as a colonel, decorated with all the military orders of Spain. The Duke of Victoria allied him to his fortunes, and found him faithful in the days of adversity as in the period of prosperity. After the defeat of the party of Espartero in Spain, Babrius took refuge in France, where the extent of his knowledge, the amenity of his character, and his taste for the fine arts, promptly created for him a crowd of friends among savants, literary men, artists, and men notable in the science of wine (ænologists) in the city of Bordeaux.

THE INFLUENCE OF WINE ON CIVILIZATION.

"Wine has played such an important part in the history of the human race, has had such a powerful influence on the

health, and on the moral life of mankind, that it is of no little importance and utility to study the culture of the vine, and the parallel social circumstances that have always accompanied it. In the earlier ages of the world, everywhere where the earth permitted, man succeeded in procuring the means of subsistence; from that time the human species formed themselves into two distinct races — the one that drank wine, and those that were deprived of it. The race that cultivated the vine maintains itself in its native unity, morally and physically, by the continued use of a vivifying drink, that from infancy to old age rejoices the heart of man, calms his cares of life, revives his hopes, dissipates his fears, increases his strength, and imparts to his genius a marvellous sagacity.

"Like truth, this race has remained one: time and circumstances of climate have not changed its typical characteristics; whilst the race that dwells beyond the vine-bearing limits, and where the vine ceases to grow—given up to the aberrations of taste, to all the sickly depravity of a stomach deprived of its natural excitement—has taken to drinking, here a decoction of burnt barley, there infusions of tea or saffron; the juice of apples, of cherries, of pears, of gooseberries; the distillation of fermented barley, oats, maize, &c. It was under the varied and deadly influence of these strange liquids that sub-races were formed, numerous and uncomely as their manners are uncouth.

"We can only study civilization in short periods, attested by authentic documents. Beyond 4,000 years the history of mankind, as well as that of the vine, is lost—oblivious in the shades of the past. The first figure that dawns on the twilight of time is Bacchus, the young and brilliant conqueror from India; barbarians became civilized on his passage to Europe; the tigers themselves come and do homage to the conqueror,

and yoke themselves to his chariot. In time the vine wins Asia Minor, the isles of the Mediterranean, Greece, Sicily, Italy, Gaul, and always leaves on its trace a shining tract sufficient to illuminate the world. Everywhere where the grape ripens, the arts, poetry, eloquence, the exquisite sentiment of the beautiful bursts and expands, as under the enchanted zephyr of a beneficent divinity. The vine gloriously spreads its branches over the hills of Athens, of Rome, and of Florence. We may say with truth, and without restriction, that civilization is a flower that grows only spontaneously in the midst of vineyards."

The professor goes on to show that this assertion acquires the evidence of an axiom for minds who search to the bottom of things.

"The most arduous problem of social economy is to point out the determining causes of civilization among peoples. If climate is the cause of different moral states of peoples, barbarous at one epoch and civilized at another, as the Athens of Pericles and modern Athens, as the Rome of the Cæsars and the Rome of the middle ages, barbarous Gaul and the France of Louis XIV.—has the climate changed? Not the least in the world.

"The modern liberal school make very little question of race or climate. For civilization is nothing but the progress of light in the material and in the moral order.

"The clergy, who have also the duty of civilizing the world, are in a situation diametrically opposed to that of the liberal school. They have received the truth; but, either that they understand it not, or pervert it, or that the good seed falls upon a badly prepared soil, the results obtained are little in proportion to the greatness of the means at their disposal. A thing most strange, and well worthy of our meditations — the

peoples who are the most subject to its guidance, such as Italy, Portugal, Spain, South America, are of all Christian peoples the most miserable, the most ignorant, and the least civilized. The economists have seen the progress of civilization in the increase of production and consumption, by all imaginable means. Under the influence of their systems thousands of human beings have been buried alive in infected workshops — changed literally into mere machines; in the day-time devoted, without pity or compassion, to work above their physical strength; in the night, penned up like farmer's cattle, in shameful promiscuity. Such are the consequences of a social economy which has for its fundamental axiom, that the civilization of a people is in proportion to its production and consumption; and, for morality, that the man the best clothed, who eats and drinks the most, is the ideal of humanity on our earth.

"For these schools the divine Plato, clothed in a plain woolen mantle, on Cape Surrium, and teaching to disciples, poor as himself, the contempt of riches, moral obligation, and the immortality of the soul, was a miserable creature compared to a fat and bloated citizen of London.

"After the economists came the socialists. These gentlemen propose several infallible means of changing this earth into a world of delight. They assume as a principle that man is born for happiness. At once encamped on this axiom, which they propagate easily among the indigent and working classes of society, they give themselves up to criticising in the keenest manner against civilization, monarchies, liberals, the Jesuits, property owners, original sin, with their ridiculous ideas of vice and virtue, good and evil, &c., &c., and after a certain number of discourses they propose to drive all that is evil from our earth, and to change the social arrangement; to unclass

mankind, and re-class them according to certain rules—this is all their plan. In looking very closely into these ingenious systems, it is impossible to see anything else than a plan of the idle to rob the industrious worker—to feed the drones on the honey produced by the working bees; this must be the definite result of all these systems of socialism and communism. It is useless to add that any trials to realize these systems have lasted no longer than the time required to consume the social funds placed in the community by the credulous disciples. Of the produce of the associated work there can be no question. The lazy have not worked in the new social order, having remained idle as before; the industrious man soon relaxes work, because he comprehends that he is the dupe whose work and activity goes to the support of the idle."

Our professor might have added, in regard to the more modern strike to raise wages to a uniform rate, that the inept and the trifler claim to be paid the same as the competent and energetic workman—a community or combination of strikers thus annihilating all incentive to individual excellence and perfection. Can it be the interest of a really good and skillful workman to join a band of strikers? The degree of the civilisation of a people is always in proportion to the quality and temperate use of the wine they consume. Brillat de Savarin, the celebrated author of the "Physiology of Taste," has written these memorable words: "Tell me what a man eats, and I will tell you what he is." This intelligent magistrate came near the truth, but he would have demonstrated the naked truth if he had written: "Tell me what you drink, and I will tell you what you are.'

"I proceed to demonstrate historically and physiologically that the use of good wine can alone produce these great and luminous developments of the human mind, which, at divers

epochs, and always progressively, have drawn on the world towards the regions of a better civilisation, and if I succeed, I shall, I believe, have rendered to science one of those services which will permit me to say with the poet,

'Exegi monumentum ære perennis'—

I have earned a monument of enduring bronze.

"That which distinguishes wine from the deleterious drinks generally in use is its general action on the animal economy. Used in moderation it increases the energy of all the faculties; the heart, the brain, the secreting organs, the muscular system, acquire by its use an augmentation of sensible vitality. Wine associates itself generally with all our functions. It strengthens and excites them harmoniously, whilst other liquors act like medicines that impart their activity to a single organ; far from increasing the general harmony of our system, they can only disarrange it.

"When wine is the predominating liquor I have little fear from the consequences of the usages of tea or coffee. In truth it is not there where the danger lies. That which threatens civilisation seriously is the use of narcotics.

Tobacco.

"In fatal epochs, under the influence of caprice, by imitation, people give way to strange usages: they chew narcotic drugs that brutalize them; they smoke a stinking acrid plant that stupefies them; they introduce into their nostrils an ammoniacal powder which renders them dirty and disgusting. We are in one of these epochs.

"Let us take care. Tobacco is the most insidious of narcotics: it is the opium of the Western nations: its smoke carries serious injuries to the mental faculties, which may not be

immediately visible. Every one knows that great smokers are sleepy, dreamy, contemplative. Their conduct through life is wanting in tenacity and perseverance; they pass from a short-lived activity to a state of inefficiency and somnolence. As long as smokers restrict themselves to the domain of ideas, of projects, and dissertations, they are admirable for reason and judgment; but when the inexorable necessities of life bring them back to the world of realities, they show themselves discontented, irritable; they accuse fortune of being unjust to them. The narcotism into which they have plunged themselves so deliciously enervates the will, and renders them incapable of following a project with vigour and perseverance. It is the only cause for that want of foresight in their character, and of which they are sooner or later the victims. A narcotized man, in a more or less degree, is a man of dwarfed faculties. Narcotics weaken the forces of the body and of the mind; they induce repose and effeminacy—to want of foresight; wine moderately used. on the contrary, keeps up a foreseeing and searching activity.

"Deprive a man of this acquired activity by means of which he penetrates into the luminous sphere of the moral world. drags from nature her most hidden secrets, suddenly his mind relapses, the springs of his genius are weakened; he feels like a rebel angel. thunderstruck by the immortal splendours of science and philosophy into the lowest and most abject regions of animality.

"Listen to Zimmermann: 'What is really the besetting sin of the human race?—pride. ambition. egoism? No: it is indolence. He that can triumph over his natural indolence can conquer everything. All the good principles become deteriorated and corrupted if not put in movement by moral activity.'

"In Asia. in Africa and in Europe the vine has rarely been

cultivated outside the zone comprised between the 30th and 50th degrees of north latitude. It is also between these latitudes where have flourished the civilisations of Japan, of China, of Persia, of Chaldea, of Asia Minor, of Greece, of Italy, of Spain, and of France.

"All will acknowledge that under these latitudes active civilisations have been manifested; history leaves no doubt of that. Under these latitudes, also, no one will deny that the cultivation of the vine exists for the purpose of drawing from it a customary beverage.

"In geographical botany it is an incontestable fact, and of the highest interest for the physical history of our planet, in that it demonstrates the isothermal temperature of the terrestrial zone of the ancient continent comprised between these two parallels."

After elucidating the growth of the grape in China and Japan in connection with his theory, our professor continues:

"If the kingdoms of Tonquin, of Cochin China, of Anam, the empires of Burmah and Hindostan, situated below the zone of active civilisation, are deprived of wine, we find vineyards well cultivated above the 30th degree in the kingdom of Lahore. The wine of Cashmere has a great resemblance to the spirited Madeira. We are little acquainted with the genius of these people, but by the admirable texture of the shawls they fabricate, which sufficiently corroborates the cause that I have the honour of defending, that the only country of India that sends us this inimitable product of art is also the only one that uses wine as a beverage.

"Persia merits particular mention. Teheran and Ispahan, its two principal cities, are situated in Irac Adgemy (the Greater Media), a province eminent in vine culture. Persepolis, founded by Diemschiat, 2,500 years before Jesus Christ,

raised its architectural magnificences in the same valley where the celebrated Shiraz is gathered; so that always and everywhere, under the green branches of the vine, civilisation flourishes.

"I would turn you from the prospect of these unfortunate regions, defiled and subjected as they are, to the leaden yoke of Mahomet. The false prophet, desiring to substitute fatalism in place of moral liberty, forbid the use of wine, and quickly the intelligence of his disciples suspended its progress, like a clock when you arrest the motion of its pendulum. Is there a more striking proof of the influence of wine on human activity?

"This passage from life to death was effected in silence. To-day, on the ruins of the cities called Babylon, Damascus, Jerusalem, Memphis, Constantinople, the Turk, crouched on his carpet, armed to the teeth, surrounded by terror-stricken slaves, who stuff his narguily with tobacco and opium, extends his stupefying visuals over a desert country. What has become of these happy civilisations, flourishing under the influence of agriculture, of commerce, of men of science, of poets and of artists? Alas, alas! they have forever disappeared, with the vineyards that covered the soil.

"There are, nevertheless, some few countries of Asia Minor that produce, by the hands of Jews and Arminians, but in small quantities, some excellent wines. We have the wine of Angora, of Isnic, and especially that of Scala Nova, raised on the ruins of Ephesus; this last was, in the most remote times, known under the name of Prammian. Homer informs us that Hecameda prepared, by the direction of Nestor, a copious potion of this wine for Machaon, when he had been wounded in the shoulder.

"A detailed and comparative study of Egypt, and of ancient

Greece, would prove the superiority of vine-producing peoples. The founder of Alexandria surrounded it with rich vineyards. The wine of Antilla, produced near that city, was the delight of Anthony and Cleopatra; nevertheless, the wines afforded by this kingdom were never sufficient in quantity to be in general use.

"We are more impressed by the vanity of despotism, than the power of genius in the monuments that encumber the Nile. How much sweat and blood, how many generations of slaves, how much treasure and time has it taken to raise these monuments of stone? Who was the monarch who sought the pride of eternity in death? These are the questions the traveller addresses to the desert when in presence of the pyramids, and the desert keeps the secret.

"Compare the development of Greek civilisation to the development of Egyptian civilisation and you will understand the influence of wine as a beverage. The Greeks thought and acted for themselves—for them, man was a being endowed with reason, master of his destiny, next to the gods. He subjects all things to examination, and soon, with a bold hand, demolishes the images of the Egyptian Typhon—the god of darkness—and takes to adoring, with all the power of his mind, Jupiter, king of heaven, and Apollo, his son, god of light, of beauty, of the arts and of poesie. History tells us that Egypt was the instructor of Greece; without contesting this, Greek civilisation was to that of the Nile like the majestic tree to the undeveloped germ in the seed—like the brilliant insect to the larva. Columns, statues and paintings, ornamented in Egypt, as in Greece, the palaces of priests and of kings, the temples of the gods, and the mausoleums of the dead. But how rude are their forms! See its Sphinx — a perfect symbol of immobility! What a languishing position!—what profound

sleep! But as soon as it has touched the vinous shores of Attica he becomes erect; his wings spread out; his sides are agitated; his eye launches out a look divine—it is the sacred fire that agitates him. The column, short and massive at Memphis, at Corinth rises gracefully in the air crowned with the acanthus. In the vineyards of the Peloponessus forms are purified—proportions are regularized. Egyptian art leaves marble as marble; under the chisel of the Greeks, on the contrary, not only does it express the passions of humanity, but it attains a dignity of mind, an elevation of sentiment, belonging to beings of a superior nature.

"Greece has thrown on the world the seeds of an inexhaustible civilisation. It is in her that poets, historians, statesmen and physicians must seek models. Still the immortal productions of her genius are transmitted to us incomplete and falsified through ages of barbarity; and notwithstanding all the ravages of time, and of ignorance, generations after generations bow themselves as they pass before them in reverence and admiration.

"To enumerate all the celebrated wines of ancient Greece we should have to name all the provinces—all the islands of the Ionian and Egean seas. Wine was the material principle that raised and sustained Greek civilisation to an elevation that no other civilisation ever attained. This was the opinion of Œsculapius, the highest medical authority of Greece, in regard to that drink that Homer called divine.

"When, after the conquest of Alexander, the narcotics of the Orient reacted on to the Peloponessus; when Bacchus ceded a part of his empire to the incense, to the myrrh, to the perfumes, to the opium introduced from the banks of the Indus or the Island of Taprobana (Ceylon), the moral life of Greece became obscured. Her artists ceased to create the finest works

of art, and little by little they lowered themselves to the modest station of mere schoolmasters. They interpreted into the language of Cicero, and later into that of Danté, the poetry of Homer, the science of Aristotle, and the philosophy of Plato. In the fifteenth century, when Mahomet II. came and hoisted the crescent on the cupola of St. Sophia, he found them occupied in that humble calling. History recounts that the caricaturists of the time represent them reading, writing, and perorating, whilst the battering-rams of the Turks were breaking down the gates of Constantinople.

"The vine passed into Italy with the Greek colonists. Upon its volcanic soil it gained in strength what it lost in sweetness, in delicacy, in perfume. It impressed its austere and energetic qualities to the school of Pythagoras, to Etruscan civilisation, and to that of primitive Rome. Up to the day when the seat of empire was transferred to Byzantium, the sovereign people retained in their pride and ambition of that communicated strength. The Roman citizen sincerely believed that the world he had conquered belonged to him, and that the rest of mankind had no other mission on earth than to fear and serve him.

"After the conquests of Scylla, and those of Cæsar, which opened to Roman activity so many new countries, added to the increased commercial connection with Greece and the Isles of the Archipelago, the astringent wines of Latium were replaced on the tables of Roman knights and opulent citizens by the Falernian of the Campania, by the light Omphacite of Lesbos, by the Phanian of Chios, by the Saprean of Arvisia, of which the perfume, according to Pliny, embalmed the banqueting hall. Chios, Corcyrus, Candia, Rhodes, Icaros furnished the empire largely with the choicest wines. Under the influence of these agreeable wines, the grave and politic genius of the

Romans was softened and became accessible to the fine arts and to poetry. Athenian elegance penetrated into their language, their manners, and their furniture. Colonades of the Ionic and Corinthian orders are displayed on the Roman forum, breaking in upon the severe monotony of the ancient constructions; the public places and the palaces are covered with statues to such an extent that a stranger said that Rome had two populations, one living and the other of marble.

"If the vine was one of the active causes of Roman grandeur, it became later, by a change of fortune, the cause of its decadence; she became for the people of the North an invincible attraction, and the Gauls, the Lombards, the Goths, the Cembri and others marched to conquer the vineyards of Italy. Notwithstanding these invasions, and the disorders that followed them, the vine has always energetically adhered to the soil of Italy. So behold what an astonishing record was that of Italy; she has worn all the crowns on her forehead. To the royalty of power, and of genius, she has successfully predominated with religion; and when Christain faith was clouded with modern pharisaism, Italy took refuge in the royalty of art; she has lived in the past, in the regions of the ideal. Given up to the emperors by the popes, and to the popes by the emperors; soiled, degraded by the stranger, she created for herself a country in the heaven of the imagination; she has found consolation in a world of colors, of melodies, and in harmonious verses.

"The grand fact that predominates in the history of Italy, is, that its vineyards are always kept up, and that its genius, excited by virtue of, and moderate use of its generous wines, civilisation has never completely died out. From the days of Romulus and Remus to Pius IX., each century has produced its great men. Were it possible to study comparatively the

state of the vineyards and the morals of Italy, we should observe that civilisation has always been in proportion to the quality and quantity of wine consumed.

"Wine has always been held in great honour in Italy. Horace has collected in five remarkable verses the chief moral qualities of wine. Pliny speaks of the vine in the XXIII. Book of his Natural History, he says: 'I am about to speak of the vine with the gravity that becomes a Roman when he treats of the arts and the useful sciences. I would speak of it, not as a physician, but as a judge, whose duty it is to pronounce on the physical and moral health of mankind.'

"Some water-drinkers have pretended that the use of wine in the middle ages was proscribed by the learned professors of Salerno, supporting their arguments upon the words 'parce mero,' which are found in the dedication of the precepts of the school which John of Milan addressed, in 1066, to Edward the Confessor, King of England, as if the words 'soyez sobre,' be sober, signified—Drink not."

After Italy the learned professor takes France and Spain in review, as connected with the cultivation of the vine and the use of wine in those countries. In regard to Spain, his native country, Babrius says:

"As long as the culture of the vine was an object of attentive care with the Spaniards this illustrious people accomplished noble works. Its decadence dates from the day when its hands abandoned the vineyards and turned to digging in the gold and silver mines of America; this was the first cause of the weakening of its genius.

"In its voyages beyond the seas it contracted the vicious habit of tobacco smoking, and this became a custom so general that women and children could not be restrained from it. Narcotism, produced by tobacco, finished in destroying the little

moral activity that the diminished wine production and the inquisition had left surviving. The failure in strength that followed the discovery of America, the policy of the House of Austria, and that of the Bourbons, the Jesuits, the inquisition, the English—as apt to paralyze the maritime activity of nations as the Jesuits are to paralyze their moral activity—have, without doubt, had their influence in the obscure role that modern Spain plays at this day."

"To-day (1840) Spain is miserable, depopulated; without credit, without a fleet; its people living in idleness and ignorance. Let her reëstablish her vineyards, and, notwithstanding her guerrillas, her monks, her socialists and her royal Isabellas, before the end of a century Spain will have reconquered her rank among the first of European societies.

"France received, as a legacy from Greece and Italy, the plants of her vineyards, and with them their intellectual supremacy in the world. The culture of the vine produced its good influences, and while wine was in honour in all classes of society, the French people, by its brilliant qualities, remained the first people of modern times; loyal and generous courage, gaiety and suavity of intellect, patriotism, eloquence, an exquisite sentiment of personal dignity associated with extreme politeness, were the principal traits of its character.

"Four elements dominated in the history of France—the people, the Gallican Church, the French kings, and wine. This union lasted to 1567, an evil epoch, when Charles IX., a sickly prince, issue of the misalliance of a noble royal race with astute, impure and ultramontane women of the House of the Florentine Medici's, misled by their ambitious views and perfidious councils he endeavoured to extinguish the moral activity of the French, to favour the usurpations of the court

of Rome, to the detriment of the Gallican Church and the rights of the people.

"Could this prince have known the generous influence of wine upon character? We are inclined to think that he did, for he had the large vineyards destroyed, and limited the quantity of land which each proprietor could be allowed to plant with the vine.

"By one of those striking coincidences which history offers us a few examples, it was the king of St. Bartholomew, the cut-throat of Christians, like the abominable Domitian, who opposed in France the culture of the vine.

"On the other hand, the encouragements afterwards given by Henry IV. and Louis XIV. to vine culture were not slow in producing their effects. Under these glorious reigns there soon appeared on the horizon that luminous literary constellation, of which Corneille, Molliere, Racine, Pascal, La Fontaine and Fenelon were the most brilliant stars.

"A literature full of wit, of warmth and of conviction, was succeeded by a literature polished but cold, spiritual but without true genius. Who does not perceive the cerebral stimulations produced by coffee in the writings of Voltaire, of Diderot, of Dalembert, of Grimm, of Beaumarchais? What vivacity in the features, what wit in the least distich, what refined criticism! These men understood and spoke of everything in a fascinating manner, and laughed nearly at everything; they buried under sarcasms the old French monarchy and ultramontanism, the death-throes of which had already been announced in the edicts of Louis XV. against the cultivation of the vine.

"The alternate influences of wine and of coffee made themselves felt with an equal intensity until 1815. At that epoch the liberators of France left in exchange for the millions they

carried away, the use of tea with the upper classes, and likely that of beer with the populace. 'Abyssus, abyssum invocat.' These hypochondriacal drinks still restrained the consumption of wine. It is from this epoch that dates this pale and melancholic literature, whose lakes, Gothic cathedrals, grand stone saints, form the delight of pensive and ridiculous youths.

"In 1830 the use of tobacco became general. In imitation of the young Orleans princes, the French adopted the cigar as a necessary appendage to their countenances. Public resorts were infested by tobacco smoke; the clubs, the coffee-houses, the provincial towns, soon resembled vast caldrons from which rose up an incense of bad odour. This universalized narcotism soon showed itself in social events—laziness overcame intellect, the natural sprightliness of youth to a skeptical thoughtlessness; the mind, too weak to change resolutions into acts, brought on grave mistakes in the affairs of life, and wants remained without the necessary activity to satisfy them.

"Socialism, the grand proof of individual feebleness, came forth, armed at all points by sophisms of tobacco smoke. The idle naturally seek to disembarrass themselves of foresight for the future in favour of the State, that is—of the care of procuring employment, and of an assured remuneration. To attain this end they have created a new law, that is—the right of labour.

"This right of labour, proclaimed by the idle, would have had no signification if it had not proclaimed another right, that is—the right of assistance. Socialism was thus claiming the right of taking the public funds, and being supported at other's expense.

"Let Frenchmen disembarrass themselves of this bad habit, with the same facility as contracted, as soon as they may know the dangers of the use of tobacco to the body politic;

then they will be convinced that this narcotic enfeebles the mind, and is the most active cause among old people of a number of paralytic affections, such as disordered nerves, premature weakening of the brain, of the lower members, of the bladder, etc.; and with young persons, of lassitude, of indigence of mind, and an infinity of neuralgias. Let them quickly renounce this narcotic, and, in the moderate use of God-given wine, they will find the physical and moral health of their French fathers.

"As to England, the nobility and upper classes — who are chiefly the statesmen and rulers of Britain — are the principal consumers of the finest vintages of the Garonne, and to this may be reasonably attributed her high position in the rank of nations. The middle classes, composing the Commons House of Parliament, are heavy consumers of Sherry and Port, the products of Spain and Portugal.

"Germany possesses excellent wines; an entire chapter would scarcely suffice to examine her political, literary and social phenomena connected with the culture of the vine. It is in the sphere of the perfume of the vineyards of the banks of the Rhine that the German mind shines most brilliantly; in the warm and vinous Hungary lies its loyal and gallant courage. Vine producing Germany, notwithstanding all that can be said to the contrary, is a country of religious and philosophic liberty — its governments are paternal. Notwithstanding the reciprocal services that popes and emperors render to each other, their powers have always remained distinct.

"The princes of the holy empire, whose cellars were richly provided with the wine of Tokay, of Schiracker and Johannisberg, have always been clearsighted, and have never allowed the least confusion to exist in affairs laical and ecclesiastical. Ulrich de Hutten said to an emperor of his day: 'Believe me,

Cæsar, you will speedily be ruined, and driven from your throne, if you confide to the Church the intendance of your domains.' The most eminent statesman of modern Germany, Mons. de Metternich, owed his eminent superiority to the stimulations of his wine of Johannisberg. If the people who compose Germany had multiplied their vines as they have multiplied their pipes, they would long ago have raised their political position.

"Holland is an example known to all. The Dutch have always drank beer as a common drink, but have always drank wine as an exhilarating beverage of first necessity. In the days of her commercial and scientific splendour she consumed a great quantity of wine. When a stranger presented himself in an honourable house, it was the custom to bring out the tray loaded with flagons of Bordeaux, of Spanish, and of Portuguese. Even the countryman, the opulent producer of butter and cheese, consumed the soothing white wines of Bergerac and Clairac. Merchants, as a rule, at the clubs drank their half bottle of choice wine during the silent hours of whist and of ombre.

"To-day the custom of the hospitable tray has fallen into disuse, and is found only in some old patrician and religious families, who carry with them all that Holland still retains of its ancient manners and patriotism. Alas! their tables are impoverished, and are wanting in the wine that formerly warmed the cold and lymphatic Batavians, gladdened their minds, stimulated their intellects, and capacitated them for executing great enterprises.

"Divers causes have reduced from 15,000 to 6,000 the tuns of wine that Holland drew from Bordeaux. Bad tariff laws, stupid embargoes on their ships, have offended the patriotism

of her merchants, and been injurious to the future welfare of Holland; for she must know that as long as she drank the wholesome light wines of France, Holland was a great and noble nation — without exception the first in free trade and economic science, and in pure and strict morality.

"Already great events have taken place to weaken her power; the brains of her eminent men, badly impressioned by a blood diluted by beer, have not been equal to those great events that were neither foreseen nor guarded against.

"The kingdom of Belgium, a detachment from Holland, only came into existence because Dutch diplomacy and administrative talent were below their ancient level.

"Let the Hollanders refresh their courage and their intelligence with the only wholesome exhilarating drink that God has given to man; for brains, impregnated with beer and alcoholic gin, can never have the intellect sufficiently lucid to unravel, without breaking, the knotted threads of politics.

"In the new alliance wine is the symbol of the Christian life—it is the connecting sign that binds man to God. 'Drink, this is my blood,' said the Savior, presenting the cup of wine to his disciples. We can then only hold communion fraternally but with wine.

"The Roman Church, in its forecast, has established for its faithful communion with one kind, that wine might never be wanting in the sacrifice of the mass, accomplished by the priest alone. Protestantism, proclaiming that every Christian is king and priest, according to the expression of St. Paul, and repudiating as an usurpation all hierarchical and privileged priesthood, admits all the faithful to full communion under the two kinds, such, indeed, as was ordained by Jesus Christ.

"The vine, then, is as inseparable from Christianity as from civilisation, and hence arose the zeal of the primitive Christians for the culture of the vine.

THE VINES OF FRANCE.

"France is the vineyard of the earth. Her fertile soil, gentle acclivities, clear sunny skies and fine summer temperature, place her, in conjunction with science and experience, the foremost in the art of extracting the juice that gladdens the human heart.

"The vines of France are grateful and beneficial to the palate and the stomach. They do not, by being too strong, carry disease into the system at the moment of social enjoyment. They cheer and exhilarate, while they fascinate all but coarse palates with their delicate flavour. Some of the wines of France will keep for a very long term of years. Rousillon has been drank a century old and still found in high perfection. The wines of Medoc and Burgundy are not so long lived, being more delicate in flavor, with less body. In France the slightest foreign taste would not be suffered in the better classes of wine. The national honour cannot be more scrupulously watched than the purity and perfect quality of the fruit of the vintage is regarded by the better class of vine-growers. The aroma, the perfume, the exquisite delicacy which distinguish the best modern wines of France were, it is reasonable to believe, unknown two or three centuries ago.

"Calculations of the French Statistical Society show that the quantity of vineyard land in France, in 1829, was 5,104,000 acres, and that more than the one-thirtieth part of France, including waste lands, was cultivated in vineyards. Mons. Cavaleau estimated the value of the annual produce of the

vineyards at 108 millions of dollars. The quantity of wine produced in a year 912 millions of gallons, or about 180 gallons per acre, worth on an average about thirteen cents per gallon. Subsequent calculations give an average of 514 gallons to each hectar of land ($2\frac{47}{100}$ acres).

"The department of the Gironde, in which Bordeaux is situated, has about 350,000 acres in vineyards, and produces the celebrated Claret wines of the highest order; in favourable years the production will amount to 75 millions of gallons, five-eighths of red, and three-eighths of white wine. This district is called the Medoc, and the wines are so designated.

"The proprietors of the vineyards of the Medoc are more or less opulent, according to the value of the wines their lands produce. Their residences at the vineyards are called Chateau or Palace, and the wines produced are known by the names of the Chateaus.

"Among the numerous chateaus at Medoc that produce the fine wines, there are three that, from their superiority, are denominated the Three Kings — the three deities of the world — Chateau Lafitte, Chateau Margaux, and Chateau La Tour. Monarchs are often dethroned by usurpers, but these three, by universal assent, reign supreme — without rivals — their superiority only varying by some seasons proving more favourable than others.

"The vines producing these wines are only grown in limited spots in the district of Medoc.

FRANCE — MEDOC.

"Medoc, containing some of the most precious vineyards of the world, is the tongue of land stretching between the sea on one hand and the Garonne and the Gironde on the other. The

name is derived from the Latin, ' Medeo aquæ,' because of its being nearly surrounded by water. It is the northern termination of the extensive district of sand hills and sand plains called Les Landes, which changes to a bank of gravel on approaching the left bank of the river Garonne, and forms a narrow slip of land nowhere more than one or two miles broad, raised from fifty to eighty feet above the river, which is planted with vines. The soil of Medoc is a light gravel, and indeed on the spots where some of the best wine is produced, it appears a mere heap of white quartz pebbles, about the size of an egg, mixed with sand. The best wine is not produced where the vine bush is most luxuriant, but on the thinner soil, where it is actually stunted, and in ground fit for nothing else, and where even weeds disdain often to grow. Yet this stony soil is congenial to the vine, retaining the sun's heat about its roots after sunset, so that it works in maturing its precious juice as much by night as by day. Manure is scarcely used in the culture; only a little fresh soil or mould is laid on the roots from time to time.

"The wines are classed into growths (crues) according to their excellence, and only a small part of the strip of land above-mentioned is capable of producing the first or premiere crues. Indeed, so capricious is the vine, that within a few yards of the finest vineyards, it degenerates at once.

"After Chateau Lafitte, Chateau Margaux, and Chateau Latour, producing generally about 400 tuns of 240 gallons, comes Mouton, Leoville, and Margaux, producing about the same quantity, and with Pichon Longueville, and a few others producing in the aggregate about 800 tuns of 2me crue or second growths. Many of the third, fourth and fifth-rate growths are produced in the vicinity of the first-rate vineyards at the villages, or in the communes of Margaux, Lafitte and

Latour, without partaking of their excellence. The goodness of the season will sometimes give an excellence to second-class names, while in bad years those of first-class names sink to mediocrity. The extensive vineyards around Bourg produced the best clarets 200 years ago, before the cultivation of the vine in Medoc had commenced, which does not date further than 250 years.

"The mansion of Chateau Margaux is situated some distance inland; it is an Italian villa, the handsomest in Medoc, and belongs to the heirs of the Spanish banker, Marquis d'Aguado, though rarely inhabited, owing to the malaria that prevails around it. It stands in the midst of the vineyards producing the celebrated wine Chateau Margaux. The grape that yields it is small and poor to the taste, with a flavour slightly resembling that of black currants. The Chateau is about half a mile from the village of Margaux, and twenty miles distant from Bordeaux.

"To the north of Margaux are situated the Commune of St. Julien, and some of the most renowned vineyards of Medoc producing the best second growths, as the vineyards of Leoville and Chateau La Rose, and in the adjoining Commune of St. Lambert is the vineyard of Chateau Latour, yielding the well known wine, prêmiér cru. The estate, which does not exceed 330 acres, sold some forty years ago for 300 thousand dollars. The second growths Pichon Longueville and Mouton come from the same quarter.

"The characteristics of the good wines of Bordeaux is their aroma or bouquet, which cannot be counterfeited; spirit, they have none, and will distill away into nothing; anything like a mixture deteriorates a good wine and destroys the aroma; still fine light wines are strengthened by stronger bodied wines, and the result is advantageous to the consumer.

"Pauillac is a small seaport on the Gironde, behind which at a distance of one and a half miles is the vineyard of the Chateau Lafitte, producing one of the three best wines of Bordeaux. The Chateaus being situated in a malarious country are by their wealthy proprietors only inhabited a small part of the year; yet the district is populous, as every vineyard has its cottages inhabited by the peasants who cultivate it. The vintage takes place in the month of September, and it is then that Medoc presents a scene of bustle, activity and rejoicing. The proprietors then repair to their estates with their friends and families to superintend the proceedings and make merry; vignerons pour in from the surrounding country to assist in the gathering. Busy crowds of men, women and children sweep the vineyard from end to end, clearing all before them like locusts, while the air resounds with their songs and laughter. Every road is filled with carts loaded with high heaped tubs, which the labouring oxen are dragging slowly to the pressing trough. This is placed usually in a lofty building resembling a barn, whence issue sounds of still louder merriment, and a scene presents itself sufficiently singular to the stranger. Upon a square wooden trough (pressoir) stand three or four men with bare legs, all stained with purple juice, dancing and treading down the grapes as fast as they are thrown in, to the tunes of a violin. The labour of constantly stamping down the grapes is desperately fatiguing, and without music would get on very slowly. A fiddler, therefore, forms part of every wine growers establishment, and as long as the instrument pours forth its merry strains, the treaders continue their dance in the gore of the grape, and the work proceeds diligently.

"**Chateau Lafitte** occupies 262 acres, valued in 1803 at $1,000 per acre, and produces 100 tuns annually.

"**Chateau Margaux,** next in fineness, with a rich colour,

and soft bouquet, and balmy to the palate, produces 80 tuns of first, and 20 tuns of second 'crue' per annum.

"**Chateau Latour** produces 70 to 80 tuns only, grown on sandy, gravelly soil, of superior body and consistency, and only less fine than Chateau Lafitte; principally consumed in England.

"**Mouton,** or **Branne Mouton,** fine quality, nearly equal to the Three Kings, occupies 135 acres, sold in 1830 for 1800 dollars per acre, produces 100 to 140 tuns per annum.

"The soil of these vineyards, which are situated on small hills, is slightly gravelly, mixed with small flint stones; the vines are planted three feet apart each way, main stems only allowed one foot in height, and are fastened to low stakes, with laths or switches to hold up the branches; frequently plowed and pruned so as to admit sun and air. The quality of the wine is always considered to depend, partly on the pains taken in the cultivation of the plant; at the vintage the exact point of the maturity of the grape is waited for; the days most favourable for gathering are chosen, the pressing principally by the feet, of distinct gatherings, of first, second and third classes, called 'crue.' As soon as the wines are in casks, the greatest care is taken to preserve and ameliorate them; they are fined and racked off, for the most part, twice a year. After they are five years old they are racked but once a year.

"The wine, when in perfection, should be of a rich colour, a bouquet partaking of the violet, very fine and of very agreeable flavour; the price fluctuates greatly, being dependent upon the seasons. The wines are classed by brokers, who decide to which class the wines belong, like all other leading commercial commodities are classed, such as cotton, tobacco, or wool. The excellence of these fine wines is attained not only by a peculiar adaptability of the soil, but by the greatest

care and pains taken in the cultivation of the vine, the gathering and pressing of the grapes, and in the after management of the wine. The wines of Medoc are the product of numerous vineyards: Leoville, St. Julien, La Rose, St. Estephe, Pontet, Cantenac, and many others partaking more or less of the qualities of the Three Kings.

"The *white wines* of the arrondissement of Bordeaux come next in celebrity to the clarets. Sauterne and Barsac are the best known white wines of esteemed quality and aroma. Hermitage, the finest of all white wines, is produced on the Rhone; the vines are said to have originated from cuttings formerly brought from Shiraz, in Persia; there is also red Hermitage.

"**Burgundy,** of which Dijon was formerly the capitol, produces wines that have a high character for flavour and bouquet. Chambertin, Romanee, Conti and Clos Vougeot stand first for superior delicacy. Volnay, Nuits, Baune and Pomard stand next in rank. Nothing is more unaccountable than the difference of production in these fine wine districts of the Cote d'Or. The most delicious of the Burgundy wines are sometimes grown on one little spot only, in the midst of vineyards, which produce no other than the ordinary quality. The finest, as Chambertin, Clos Vougeot and some others, are stored at the vineyards, and sold only in bottles. The product of some of the ordinary Burgundies is nearly a thousand gallons per acre.

"**Champagne Wines.** Those wines that effervesce (Vins mousseux) are impregnated deeply with carbonic acid gas, from their being drawn off before fermentation is complete. The wines for which the ancient province of Champagne is celebrated have from a remote period, ranked first in excellence among the wines of France. It is said that the French King, Francis I, Pope Leo X, Charles V, of Spain, and Henry

VIII, of England, had each of them a vineyard at Ay, their own property, and on each vineyard a small house, occupied by a superintendent. Thus the genuine article was secured by each sovereign for his own table. There are many kinds of Champagne wine, but the best are those that froth moderately; when the effervescence is in excess, the better qualities of the wine and spirit evaporate. The finest Champagnes are those grown in the vineyards of Ay, situated on a calcareous declivity, at the foot of which runs the river Marne. The fine lands of the hilly district of Rheims are those of Bouzy, Verzenay, Sillery, Verzy, and also a number of other districts.

"It seems a singular fact that the blackest grapes should produce wine of the finest white, and straw colour, while the white grape produces an inferior wine to the foregoing. Ay is a small town on the right bank of the Marne, a little above Epernay, where the black Champagne grape is mostly cultivated, and the wine approaching that of Ay in the abundance of saccharine matter in delicacy of flavour, and in the fragrance of the bouquet; and the bouquet of genuine Champagne can not be imitated.

"There are many makers of Champagne at Rheims and at Epernay. Mumm and Moet have long been known, but many other makers are now in vogue, so that at the present time, Champagne is known by the name of the makers and merchants, more than by the place of its production. The average quantity of sparkling Champagne produced annually is estimated at 14 millions of bottles. In 1836, France took 625 thousand bottles; England and the East Indies, 467 thousand; United States of America, 100 thousand; Russia, 280 thousand; Sweden and Denmark, 30 thousand bottles.

"**Muscadine Wines** are grown in Languidoc; those of Frontignac and Lunel are the most noted, and are luscious,

fine, spirituous and sweet; the grapes from which these wines are made are partially dried before pressing.

"**Brandy.** A portion of the produce of the vines, amounting to 115 millions of gallons, is distilled into brandy, and yields $16\frac{1}{2}$ millions of gallons of spirit, and from the murk is distilled 814 thousand gallons of pure alcohol. Of French brandy, that exported from Cognac is generally the most esteemed. Distillation was a process unknown to the ancients; we are indebted to the Arabs for the invention about the year 900. The main object of distillation with the French is to disengage the spirit speedily, with as much purity as possible, together with the aromatic principle, belonging to the substance distilled, so strongly marked is the spirit with the taste of the wine from which it is distilled, that persons of experience can easily tell from what wine district it came, and from what species of grape. Spanish brandy ranks next in quality to that of France.

WINES OF GERMANY.

"The vine was introduced later into Germany than France; the first vineyards being on the Rhine in a cleared portion of the Black forest. The Rhine, the Moselle, the Neckar, and the Maine, are gardens of the vine. While many of their writers ascribe its introduction to the Emperor Probus and his legions about the year 280, others go up to the Asiatic Bacchus, and pretend that Bacharach, in the vicinity of which so many excellent vineyards are found, derived its name from the deity of wine. A stone still exists in the river which they call Bacchus' altar. It matters very little whether the territory of Treves poured out its abundance in the time of the Romans or of Charlemagne, the Germans have enjoyed it since the year 400. The German loves his glass of cheerful wine, and while

he cultivates his vines, let the grave burgher of Treves drink his wine of Augenscheimer, his Schamat, and of his Pitcher, out of his green glasses to four score years of age, provided he will allow the foreigner to share a little of his golden vintage. From Bonn to Coblentz, and from the latter city to Mayence, the country is covered with vineyards. The Johannesberger of father 'Rhine,' the Gruenhauser, or the Braune-berger of the Mozelle, and the Hockheimer of the Maine, each distinguish and hallow their respective rivers in the eyes of the connoisseur of wine.

"Whoever has visited the noble Rhine must have been sensible of the beauty of its vineyards, covering steep and shore, interspersed with the most romantic views, towns ancient and venerable, smiling villages, and the rapid, broad German river, reflecting the rich scenery of its banks. Nowhere is the fondness for vine cultivation more evident in every grade and class of farmer, than in German wine districts. The humblest peasant has his square yard of vineyard; every accessible spot on the declivities with an auspicious aspect, is decorated with the favourite plant. From Mentz, even to Bonn, the vineyards of the Rhine are observed to greater advantage than any similar cultivation in other countries. Erbach enthroned on its vines; the Rhinegau, the Johannesberg on a crescent hill of red soil, adorned with cheering vegetation, every cranny cultivated that will carry a vine; Mittelheim, Geisenheim and Rudesheim, the last with its fine wine of strong body, the grapes of which bask on their promontory of rock in the summer sun, and imbibe its generous heat from dawn to setting; then again on the other side, Bingen, delightful, sober, majestic, with its terraces of vines, topped by the Chateau of Klopp. Landscapes of greater beauty, joined to the luxuriance of fruitful vine culture, can nowhere be seen.

"It is as far north as Coblentz that the soil first becomes particularly well adapted to the cultivation of the vine. The right bank descending is most noted for its wines, but the vineyards in many parts cover both banks. The Rhinegau is a district about fifteen miles in extent, and here the most celebrated wines of Germany are grown, including the far famed *Hochheimer*. The true Hochheimer is grown to the eastward of Mentz, at Hochheim, between that place and Frankfort. Each acre contains four thousand plants. The whole produce in a tolerable year is twelve large casks, which sell for about 750 dollars each. It was once the property of General Kellerman, and since, of Prince Metternich.

"**Liebenfrauenmilch** is a fine bodied wine grown at Worms, and was formerly reported to grow one hundred and fifty fuders (40 gallons each), within the territories of the city; the small spot producing the choicest wine had been the garden of the convent of the Liebfrau, or beloved Virgin.

"The grapes that are preferred for general cultivation are the Riessling, a small white species, harsh in taste, but in hot seasons furnishing a remarkable good wine, having a fine bouquet. This and the Traminer, with the Kleinberger, are considered the best for producing the finest wine. The vintage does not take place until the grapes are quite ripe, in fact, until they are soft from perfect maturity, and on the verge of change. They are carefully gathered, the bad fruit picked out, and with the stalks put aside. The wine of the pressings is separated 'most vom erster druck.' 'vom nachdruck.' The most celebrated of these wines are all fermented in casks, and then after being repeatedly racked, are suffered to remain for years in large fuders (a common fuder is about 250 gallons) to acquire perfection by age. The wines mellow best in large vessels, hence the celebrated Heidelberg tun, thirty-one feet

long by twenty-one feet high. The French satirist Rabelais, three centuries ago, likened Gargantua's salad dish in size to the large tun of the friars of the Cistertian order, which tradition says was made by order of St. Bernard, represented by Althamar in latin verse, and by Sir Thomas Urquhart, as follows:

'The world's eighth wonder Erpach boasts: a tun
Of such dimensions that the rolling sun
It's like ne'er saw; a sea of wine it shows,
And night and day with Bacchus' nectar flows.
Call! Bernard, the Cistertians all around
Among them let thy order too be found!
This vessel shall their annual stores supply,
Swill Erpach's monks! make Bacchanalian cheer!
This Bacbuc safe, no thirst you need not fear.'

"The German are a distinct class in character from all other wines. They are generous, more dry than the French, finely flavoured, endure age beyond example, and of late years have been much improved in quality by sedulous attention bestowed upon their growth and better management of the vintage. The wines show a corresponding excellence and average twelve per cent. of alcohol, and it is observed that the gout is a disease rarely known on the banks of the Rhine, where hardly any other wine is drank.

"The whole eastern bank of the Rhine to Lorch, or the Rhinegau, and throughout its whole extent has been remarkable for its wines for many centuries. The whole district is a delicious wine garden, once the property of the church. In this favoured region stands the castle or *Schloss Johannesberg*, to which undisputably belongs the head of the Rhenish wines. This estate was originally a convent, founded 1106, which held it to 1715, since which it has been in possession of the Prince of Orange; in 1807 Napoleon gave it to Marshal Kellerman, who

remained its lord until 1815, when it fell in consequence of the Congress of Vienna, to the share of the Emperor of Austria, who in his turn gave it to its present holder, Prince Metternich, as Austrian and male-hereditary fief.

"His highness has spared no means or expense to obtain through his administration the utmost perfection in regard to the culture of the vine, and the treatment of the wines, so that the Johannesberg may be considered as a model school for both these main objects. The superficial content of the vineyard is 66½ morgen (acres), and from 1822 to 1846 had five good years—producing each year 10,560 to 16,000 gallons of fine quality, being 160 to 240 gallons per acre. The wines of the best vintages are sold in bottles only; the varieties are distinguished by different coloured seals. The first of these varieties has a blue seal, and is probably not only the finest of German wine, but the highest specimen of what the vine can produce. For this quality the grapes are selected with scrupulous care, the best berries only being taken from the ripest bunches. It can only be made in the most favourable years, and the quantity never exceeds sixteen aums of 40 gallons each.

"The *Steinberg* is a domain belonging to the Duke of Nassau, and cultivated exclusively with Reissling; there is at present a great rivalry between the vineyards of Johannesberg and Steinberg. In good years it produces wines of the first rank, which have great merit with regard to their fragrant bouquet and vivid flavour; it has great strength, and yet is one of the most delicate aroma. The manipulation of the vine and the wine is analogous to that of Johannesberg; that called 'Cabinet' has brought in years of favourable vintage, 350 dollars the aume (about 40 gallons). The whole vineyard, about

three miles from the river, is surrounded by a wall and measures 108 acres. Its product in 1846 amounted to 25 thousand gallons, or about 230 gallons per acre. It was formerly a dependency of the abbey of Everbach, which was transformed into a domain at the abolition of the convents. The vaults of the abbey contain the Cabinet of the Duke of Nassau, which is a collection of the finest wines from all vintages and situations.

"Marcobrunn extends over an elevated plain near Erbach. **Marcobruner** is an excellent wine of fine flavour, especially the Auslaas, when the vintage has taken place in a warm year; the ripest grapes being gathered and vintaged separately. The Count of Schönborn is the principal proprietor.

"**Ruedesheim** is a district of the Rhinegau. The Ruedesheimer Berg ranks among the best wines of the Rhinegau, some exceedingly powerful from the Orleans grape, and others of a more vivid bouquet from the Reissling grapes.

"**Hochheim** has the same standing as Ruedesheim; the river Maine runs past Frankfort, and on its banks the little town of Hochheim stands upon an elevated spot of ground in full blaze of the sun; from Hochheim is derived the name of Hoch, generally applied in England and America to all German wines. The town stands in the midst of vineyards; that which produces Hochheimer of the first growth is about eight acres, extending from the church down the hill. Its wines from good vintages fetch heavy prices. Niersteiner, Brauenberger, Roth, Stein, and many others, are good German wines.

"**Assmanshäuser.** The Rhinegau produces but one renowned and noted description of Red Wine, the Assmanshäuser, about three English miles from Ruedesheim, down the river.

This wine has a good deal of strength and of delicate flavor, equal to second class Burgundy.

WINES OF SPAIN AND PORTUGAL.

"The wines of Spain are grown on a soil highly congenial to the culture of the vine, and rank high in general estimation. The sun ripens the grapes without those hazards from chill and humidity to which in a more northern climate the vintage is constantly exposed, hence the crop rarely fails; from north to south, sites, soils and exposures of the happiest kind cover the face of the country.

"**Sherry Wine** is made at Xeres, from which it derives its name, a flourishing town some twenty miles from Cadix, and about ten from San Lucar on the Guadalquiver; the vineyards extend for several leagues around the town, consist of chalky or light sandy soils, and are exceedingly productive, the average of fair sized vineyards being from 50 to 60 butts of 127 gallons each, or about 300 gallons per acre, some even produce 600 gallons per acre. The soil is dug deep and trenched, but not manured: the labour is continued to destroy the insects that infest the vine.

"The grapes are submitted to the usual mode of pressure, and are sprinkled with gypsum to saturate the malic acid in the fruit. The must is left to ferment in the cask with all the scum retained, which the fermentation raises, not being suffered to work over, but left to itself. It is racked after the vintage, the March following; the casks are left exposed to all temperatures, and sometimes in the open air without mischief, and a good cellar, as held in the north, is considered of no moment. The process causes matter for surprise, how so excellent a product is obtained. The high price of good

Sherry is not wonderful when the care in the growth is considered; a bottle of very superior Sherry fetches 70 to 80 cents on the spot, though the common, ordinary wine of the country is but 12½ cents. The varieties of Sherry depend a good deal upon the species of vine used, the class of soil in which it grows, and care taken in the management of the fermentation. All Sherry wine is by nature of a pale colour; the darker shades are conferred by age or by boiled wine, called arropè, which afterwards mixed with the pale wine makes the brown Sherry of different shades so much esteemed. The pale Sherries are the pure wines, containing nothing but the admixture of a couple of bottles of pure brandy to the butt.

"The wine called **Amontillado** is a drier wine than the common Sherry. To make this the fruit is plucked two or three weeks earlier than the other sorts. The white grapes are trodden by the peasantry with sabots on their feet; the wine is then allowed to ferment for two months or more, then racked into casks, and stored above ground at Port St. Mary or Xeres. These wine stores or bodegas are immense warehouses containing Sherry wines of all ages and qualities. Forty years ago when the writer visited Xeres, the bodega of Mons. Domec was the principal, and had the pleasure of being taken round by the courteous proprietor himself, and shown and tasted wines from the oldest casks, one claiming to have furnished Sherry to Pitt the English statesman, and another cask that had supplied Napoleon Bonaparte. In this large warehouse, covering an acre of ground, scores of men were busily occupied in racking off and preparing the wine for shipment to foreign markets.

"Strength and durability are characteristics of all Sherry wines, and a good age is required to impart to them the proper flavour and that mellowness so grateful to the palate.

"From Catalonia a common wine is exported in large quantities, called *Malmsey*, which is also the name of a Canary wine, also Maturo and Terragona, of a quality somewhat harsh between Port and Claret. *Catalonian Wines* are both red and white, and are seldom imported to the United States. Before the American colonies were lost to Spain, 350 thousand pipes were annually exported to Spanish America.

"The wines of *Malaga*, produced in the mountainous districts around the city, are well known wines, dry, sweet and luscious. The vineyards are estimated to produce 30 to 40 thousand butts of 127 gallons each per annum. As much as £200 sterling has been paid for a cask of very old wine of fine quality. The varieties of the vine in the Malaga district are very numerous, and in this fine climate there are three gatherings of grapes in the year. The first gathering takes place in June, and furnishes the Muscatel Raisins, and the bloom, dried in the sun. The Lexias, which are exported as such, are dipped in lye and exposed to the sun's action. The Larga grape that yields the sun raisins, makes an excellent wine mingled with the Pedro Ximenes grape. The export of fruit and wine to America is on the increase. The Muscatel grape cannot be cultivated more than four leagues from the coast. The fine climate of this part of Spain renders the vintage not only rich in produce but certain in crop.

"The wines commonly drank by the people in the interior of Spain are much deteriorated by carelessness in making, and tainted by the skins in which they are put, which, the lack of staves for barrels, and poverty, compels them to use. The wine sold in the taverns is relished by the natives, but cannot be drank by foreigners, being so defiled by the skins in which it is transported.

"**Port Wine.** The wine country of the Douro extends along the banks of that River in Portugal, about fourteen leagues from the city of Oporto, from which the wine receives its name. The vine is very generally cultivated in the kingdom of Portugal, but it is the vineyards of the banks of the Douro alone that produces the celebrated port wine. The vine-training is of the low kind, like the French, and the vineyards are on the slopes of schistous hills of most favourable aspect; a small black grape, producing a light-coloured, durable wine, much esteemed; also the bastardo, black and small, grown on a deep slaty soil, is one of the best species; there are also several others, as Tinta Lameira, Tinta Caa, etc.

"The grapes are trodden in vats, with the stalks, and while fermentation proceeds the operation is repeated, while the time of fermentation rarely exceeds seventy-five hours; the wine is then put into tuns, containing a dozen pipes each. After February it is racked, brandy being added in the proportion of 4½ gallons per tun, to larger quantity, to suit the intended market. England, where port wine is a favourite, is the largest market; twenty thousand tuns a year was formerly required to supply the English market. The best sent to market is from the centre of the Upper Douro. Port is said to be less esteemed in England than formerly; still a recent sale in London is reported of port, bottled 1840 and 1842, at £6 per dozen bottles, by the bin.

"The United States, Brazil, and Germany take about 5,000 pipes.

"**Lisbon Wines** are of two kinds, dry and sweet. Charneco, a wine mentioned by Shakespear, in Henry VI., came from a village of that name not far from Lisbon. Formerly dry Lisbon was a noted table wine, but was thought (probably unmeritedly) not good for nervous persons.

"**Madeira Wine.** There is much uncertainty respecting the period at which the grape was first introduced into Madeira; it was probably stocked with the Malvasia (Malmsey) grape from Spain or Portugal, originally from Greece. Prince Henry of Portugal did not colonise it until 1421. Madeira was so named from the island being thickly covered with wood. The volcanic soil being singularly suited, the growth of the vine was early introduced. Sugar canes from Sicily were also first planted there. By a conflagration kindled by the discoverers the forests were consumed, and the soil in this way was cleared for planting, for it is on record that wine was exported from the island before 1460. The early colonists of North America were no sooner settled than they carried pipe staves to the island and exchanged them for wine, and within half a century past Charleston, South Carolina, was reputed as having within her warehouses the finest old Madeira, imported in times long gone by, this wine being much drank in the American colonies and in the West Indies.

"The two kinds principally produced were the Malmsey and Madeira. The Malmsey, of which there was but one good vineyard in the island, was a most delicious wine, remarkably rich and luscious — a part being reserved for the royal table in Portugal — and is produced from an avalanche of tufa. lodged at the bottom of an almost inaccessible cliff. Of this vineyard the Jesuits were said at one time to have held a monopoly.

"The vines in Madeira are planted in lines in front of the houses, trained on trellis work seven feet high; the branches are conducted over the tops so as to be horizontal to the sun's action. They thus afford a canopy, yielding a delicious shade to those who walk under them. The vines give no wine until the fourth year, and the average product of all the vineyards

is not more than a pipe an acre. The wine of the first quality, which is called pinzo, arises from the treading only in the trough or vat by bare-legged peasants; the after-pressing is done by a lever—this is called mosto. The vintage is in September, and the fruit is sorted. The southern part of the island produces the first class Madeira wine. The produce was formerly reported at about 25,000 pipes of 120 gallons each. To attain its utmost excellence it is sent on a voyage to the East or West Indies, and bears age remarkably well—its flavor and aroma perfect themselves by years. It is in perfection at twenty years old, and does well in extremes of heat and cold, in India and Canada. The Azores produce about 5,000 pipes of wine, a Malmsey and vino seco, or dry wine, and are classed as inferior to the wines of Madeira.

"**Canary Wines.** The Canaries is a group of islands belonging to Spain, the chief of which are Canary and Teneriffe, and export about 25,000 pipes of wine per annum. Canary was formerly much drank in England. In the early voyages to these islands, published 1598, by Hackluyt, there is a passage about sack, from which it would seem the term sack was applied to the sweet and dry wines of Canary, Xeres and Malaga.

"**Italy.** The vine in Italy is trained generally in the high method; in some places they are conducted from elm tree to elm tree, and even when the vine is raised on trellis work, it is rarely pruned or trained. The grapes when trodden are thrown together in the most careless way, ripe and unripe, sound and unsound are commonly intermingled. The process of fermentation is often conducted in the same slovenly manner. Still there is excellent wine drank in Italy, in particular places; and if the vintage were as well conducted, and the

same pains taken as in France, very superior wines would be the result, since the climate is matchless.

"Some of the best wines of Italy are found in the vicinity of Naples, the soil there being volcanic, and eminently adapted to the vine. The *Lachryma Christi* (Christ's Tears) is an extremely rich variety, of a red colour, and exquisite flavour, and is said by some to be the Falernian of Horace. It was of the Lachryma that a Dutchman exclaimed: "O Christ, why didst thou not weep in my country!"

"Redi wrote his Bacco in Toscano, and sang:

"'The ruby dew that stills
Upon Val d'Arno's hills,
Touching the sense with odour so divine,
That not the violet,
It's lips with morning wet,
Utters such sweetness from her shrine.'

"The luxurious vines of Tuscany produce wines made in some places with considerable care. Without any excess, all classes in Tuscany enjoy their wine, fancying it makes good blood.

"'Il buon vino fa buon sangue.'

"Various districts of Italy have their wines, of more or less repute for home consumption, but for some reason or other they will not keep for exportation. The red wine of *Chianti*, the wines of *Marina*, *Carmignano*, *Ponciano* and others, are several of them excellent."

Chianti wine has recently been imported to St. Louis; it comes in flasks of about a quart, slightly corked, with a little fine olive oil put into the neck, which keeps the wine effectually from the air, as was the custom in ancient times. The Chianti is fine, mild and pleasant to drink, still there is a risk in keeping it any length of time in the climate of Missouri.

"**Monte Fiascone** is of fine aroma and intoxicating; it is grown near Lake Bolsena, and is called 'Est, Est,' from its having caused the death of a bibulous German bishop, named Defoucris, whose valet arrived in advance of his master at Monte Fiascone, and approved of the wine. The bush is a bunch of evergreens, hung up over the entrance to a house to show that wine is sold there. Defoucris's valet wrote under the bush 'Est, est,' meaning very good. The good bishop soon followed, found it so palatable, drank too much, and repeating the experiment too often, drank himself dead. His valet wrote his epitaph as follows:

"'Est, est,' propter nimium 'est'
Dominus meus mortuus 'est.'"

which may be rendered—

"'Tis, 'tis,' from too much 'tis'
My master dead 'is.'"

"**Sicily** produces wine in great abundance; the best red wine grows on Mount Etna: also Syracuse produces, over its smouldering remains, a red Muscadine, equal if not superior to any other. Messina furnishes much wine for exportation, and *Marsala*, when obtained without the admixture of bad Sicilian brandy, is an agreeable dinner wine, something like second class Madeira.

"**Hungary,** whose wines enjoy a well merited fame, produces the fine *Tokay* and others. The making of wine is very coarsely carried on by the peasantry. When the grapes are too abundant for the operation of pressing, they put them into sacks and tread them out, and the contents of the sacks are put by for distillation. The Hungarians reckon sixty varieties of grapes, and make thirty varieties of wine, the most celebrated of which is Tokay, called the king of wines, the

product of a district around the town of that name, in the vicinity of a range of the Carpathian mountains, latitude 48°. Throughout this district the grapes are large, and of a rich luscious taste. The grapes for the Tokay wine are the Hungarian blue; they are collected late in the season, almost shriveled up to raisins, and then carefully picked one by one. The vines are grown pollard fashion, and the vintage seldom takes place before the end of October. The grapes are trodden in a vat with the naked feet, the must allowed to stand twenty-four hours, then set to ferment. This is the famous Tokay wine, or Tokay Ausbruch (ausbruch, a flowing forth of the syrop); it is then strained into casks. Tokay has a powerful aroma; the taste is soft and oily, and has a peculiar flavour of the aromatic kind, and is so luscious that the taste is not easily forgotten. This wine sells in Vienna for sixty dollars a dozen. The vineyard belongs to the emperor and a few of the nobles. Tokay cannot be drank under three years old: the soil producing it is slightly volcanic. [Some of the red wines of Hungary resemble those of Bourdeaux, but on trial have not kept as well at St. Louis.] The value of Tokay is an example of the caprice of taste, or fashion in wine, yet it has nothing more than the singularity of its flavour to recommend it.

"The production of wine in the whole Austrian empire, including Hungary, is estimated by Blumenbach at two and a half millions of pipes of 120 gallons each. By some the product is estimated at a higher figure.

THE VINE IN GREECE.

"Of the wines of the *Ancient Greeks* we know little. That they preferred old wine to new, that they mixed water with

their wines, and sometimes used them perfumed, that an habitual drunkard was considered infamous, and that the names of some of their wines may be found in the works of some of the writers who have reached our time, is familiar to every scholar.

"Since the time of the conquest of Constantinople by the Turks, it is not at all likely that in the Greek islands the mode of making wine should have much changed, however the quality may have become deteriorated. In Napoli de Malvasia, in the Morea, was made the celebrated *Malmsey*, which has been imitated in almost every wine country in the world.

"The soil of the islands and mainland of Greece differs very much; hills of calcareous earth, with slopes of benign aspect; gravelly soils, and others of volcanic origin, offer situations for vineyards of rare occurrence. *Candia*, *Rhodes* and *Cypress* produce some excellent wine at this day. The country in Cypress, situated between Limassol and Paphos, contains a good many hamlets and villages, and was in the middle ages occupied by the Commandery of the Templars and the Knights of Malta. The wine made of the best grapes is still called the wine of the Commandery.

"The quantity of the red wine of the Commandery produced is probably ten thousand jars (of five bottles each). Wines of an inferior quality are made in Cypress, and generally drank by the natives; they taste insupportably of pitch. About five thousand jars of very sweet Malmsey are made in Cypress. These wines, it is most probable, have undergone little or no change since the days of Strabo and Pliny, who reckoned them among the most valuable in the world. There is a custom in Cypress among families of burying a jar of wine at the birth of a child, to be dug up at its marriage, which wine is never sold whatever may be the fate of the child.

"**Scio** still produces wine called *Homer's Nectar*, as it did two thousand years ago. The white and black grapes are mingled to make this wine, which is much esteemed in the Archipelago; it was anciently in great repute. Cæsar gave a hundred vessels of it on the occasion of his triumph. The use of resin, mingled with the wines to impart a short-lived durability, is considered by the Greeks to impart a necessary and agreeable flavour.

THE VINES OF PERSIA AND THE EAST.

"The consent of universal tradition has bestowed the origin of the vineyard upon *Persia*. The fruit of the vine in that country reaches a remarkable size, and the provinces bordering on the southern end of the Caspian Sea have always been noted for excellent wine. A great deal of wine is drank secretly in Persia by the Mahomedans, independently of what is consumed by the numerous inhabitants of that country who are not of the Moslem creed. Mandelsloe, in 1638, says *Shiraz* was noted for the excellence of its wine and the beauty of its women, and reports a saying of the Persians, that 'If Mahomed had been sensible of the pleasures of Shiraz he would have begged of God to make him immortal there.' Of late years the manufacture of wine even at Shiraz has been neglected, and it is much to be feared the products of the still has taken its place with the Mahomedans in their covert libations to Bacchus.

"At *Damascus* the '*wine of Tyre*' of the Scriptures, called by Ezekiel 'wine of Helbon,' and by the Greeks 'wine of Chalybon,' is yet made; it is a sweet wine. On *Mount Libanus*, at Kesroan, good wines are grown. In cultivating these vines on Mount Lebanon the plow is used, the rows being suf-

ficiently distant to allow its passage. The grapes are as large as plums; these, they say, are of the class that the Hebrews saw when approaching the Land of Promise; they might well covet the land that grew them. The Maronites and natives drink freely of the wine, and are said to be remarkably convivial. At Jerusalem white wines are made, but of rather poor quality.

"The territory of *India* was the fabled birthplace of Bacchus. This, whether fabulous or not, only relates to the territory west of the Sutlej, or as it was anciently called, Hyphasis. Eastward of this the arms of Alexander never penetrated, nor does it appear that the ancients knew anything of the country beyond."

At Lahore, a little to the west of Sutlej, and on another tributary of the Scinde or Indus, is the residence of Mr. Ph. MacAdam, a near relative of our accomplished citizen, D. H. MacAdam. Here wine is made of good quality, and all the way from thence to Candahar, in Affghanistan, and northward to Cashmere, vines are planted and wine is made.

At Candahar wine is forbidden to be drunk, according to the custom in Mahomedan countries. Those found intoxicated are punished by being seated upon an ass, with their faces toward the tail, and so led through the streets preceded by the beating of a gong, surrounded by a crowd of vagabonds.

Wine was made on the hills as far south as Golconda during the reign of the great Akbar, whose tomb is at Agra, one of the principal towns of British India; and although wine was prohibited, it was evidently used in this the noblest city of his empire. The wine used at Delhi in the time of Aurung Zebe was imported from Persia by land, or by sea at the port of Surat. A king of Oude recently showed a fondness for

wine, and yet was anxious, like a true son of his church, to maintain the appearance of being a good and true believer, knowing that this was all about which he need trouble himself; the great difficulty being to gratify his anti-Mahomedan desires and preserve his reputation for holiness.

China. Grape wine is spoken of in the annals of China long before the birth of Christ, and was always esteemed there the "wine of honour," yet mandates have been issued at various periods for rooting up the vines, until the grape vine is almost forgotten. The wholesome product of the vine is now superseded by the use of opium—a drug the habitual use of which is almost as bad in its moral results as the immoderate use of alcoholic drinks in our own country.

The *Japanese* cultivate only one variety of the European grape; the art of making wine from grapes is not understood in Japan, and they have no vineyards, but simply a few vines around their dwellings. There are several species of wild vines in Japan, producing small, dense bunches of black berries, of an agreeable, slightly acid flavour when ripe.

AUSTRALIA.

The vine has been introduced into *New South Wales*, and other parts of the Australasian Continent, in all its varieties, and wine of a fair quality made. The climate is admirably adapted to the vine, and it may be presumed that when the cultivation and management is well understood, a product of value may be supplied for home use if not for exportation. In 1849 eleven hundred and twenty acres produced 101,000 gallons of wine and 1,781 gallons of brandy.

AFRICA

No longer boasts of the Mareotic wine of ancient Egypt, so famed in historic times. It is only at European settlements

in South Africa that civilization has introduced one of its greatest luxuries.

South Africa. The vineyards of the *Cape of Good Hope* are some of them in the vicinity of Cape Town itself, where the beauty of the climate and the equality of the temperature are particularly favourable to vine cultivation. The grape vines were first brought to the Cape from the banks of the Rhine; the fruit is full size, rich and fine. The Dutch first settled the Cape and planted the vine in 1650. At the Revocation of the Edict of Nantes by Louis XIV, French Protestant emigrants settled at Franschehoek, and their descendants are the principal vine-growers at this day. The cultivation of the vine is an important source of wealth to the colony; as much as 4,200 tuns were exported in the year 1817, although the average annual export has since fallen off. Constantia, both red and white, is celebrated among the first class of sweet wines. The vineyard was so named from the wife of the Dutch Governor, Vander Stel, who cultivated it. The wine is sweet, and what the French call vin de liqueur, and not to exceed 80 to 90 pipes is produced annually, and sells for a hundred to a hundred and forty dollars per half aum of 19 gallons. The soil of the Constantia vineyard is a sandy gravel.

SOUTH AMERICA.

The vine producing belt of the Southern Continent abounds in vineyards. The wine vine of Europe is grown in numerous places between *Buenos Ayres* and *Mendoza;* they are very prolific, and having a favourable soil and climate, bring forth fine fruit. A very good second class wine is made at Mendoza, situated on a high plain near the Andes, in latitude about 33°, which is an article of considerable traffic with Buenos Ayres,

a thousand miles distant across the pampas. The wine is conveyed in small barrels slung on each side of a mule. Sweet wine is also made at Mendoza, resembling Malaga, for which end they suspend the grapes for some time in bunches to mature, after they are taken from the vine. On approaching Mendoza fields of clover and vineyards greet the eye on every side, and the gardens of the city are filled with the best Muscadine grapes in the world, as for size and flavour. Both red and white wines are made, the latter bearing in the United States the price of Madeira. Brandy is also distilled from these wines.

Peru affords delicious grapes, and those produced near Lima are in demand for eating. The soils of Peru are stony, and sandy, or consist of small flints and pebbles, and covered by not more than eighteen inches of earth; the land may therefore be considered very congenial to vine culture. The olive also flourishes here in whole forests, and grows finer than in any other country.

Chili produces better fruit for wine than Peru, but purchasers being wanting, the vine grounds lie neglected. The red grape is most cultivated, and is remarkable for richness and flavour. The Muscadine exceeds that of Spain, as well in the fruit as in the wine produced. The vines are grown on espaliers, and nothing can exceed the beauty of the clusters of the Chilian grapes. Brazils and other parts of tropical America are outside the limits of the vine producing latitudes.

NORTH AMERICA.

Mexico, where the small wild grape is indigenous, the Spaniards introduced the wine-bearing vine (vitis vinifera) of Europe as early as 1572. The northern part of Mexico, com-

mencing on the Rio Grande from Chihuahua to El Paso, and west to the Gulf of California, is the region best suited to the wine grape. The Mexicans produce good wine on the light soils of the hill sides, in those mountainous and hilly countries. Wine is produced in abundance, except those seasons when late frosts occur, which even at Chihuahua occasionally come as late as the mouth of May. In favourable years, where pains are taken in the vintage, a good article of wine is made; but as a market is wanting, there is small inducement to extend the cultivation. French wines have the preference even in the City of Mexico, and south of the vine region, the Maguey plant (Agave Americana) takes the place of the vine, and furnishes the natives with their favourite Pulke or beer, from which they also distil an ardent spirit.

CALIFORNIA

Is destined to become the wine-growing country of the United States. The vitis vinifera was there introduced in the last century by the Spanish missionaries, and found to suit the soil and climate admirably. The grapes are of several varieties, and are large, fine and luscious in flavour; but as may be seen from this brief history of the vine and its productions, that the finest fruit does not always produce the best wine, and that the favourite spots where fine wines are made are few and far between. Have the favoured localities been discovered in California? Has the wine sent out been remarkable for quality, or agreeable in flavour to the wine drinkers? The general verdict in regard to California wine is not over favourable; wine consumers in the eastern and western cities seldom call for it, and even in San Francisco the light wines of France still take the lead. What is the reason that the California wine product

falls behind — is it want of care, is it want of selection; are the different sorts of grapes kept distinct before being thrown into the vats for pressure? Is care taken of selecting the finest and ripest grapes, called by the French first crue, and picking them from the stems, excluding the unripe or imperfect berries; and are the same precautions taken in the treatment of the wine as practiced by those great master wine producers of the Garonne and the Rhine? That wine has been made of satisfactory quality in California a few connoisseurs at St. Louis have positive proof in an article of red California wine, ten years in bottle, as positively no way inferior to a fair quality of Burgundy, both in bouquet and flavour; but the exact spot of its production in California is unknown. If such wine can be produced once it can be produced again in favourable seasons, and a reliable article would always command a high price.

Mr. Boucicault, the comedian and dramatic writer, was recently in San Francisco, and is reported to have remarked, holding a glass of claret between his eye and the light: "In furnishing their tables it is, in my opinion, not giving native products a fair chance; you have qualities in your wines, in your fruits, and even your meats, that are racy of your soil and belong to the climate. I am sorry though (sipping his claret with the air of a gourmet) that California has had a set back in her wine yield this season, just as she was coming to the front on merit. But better luck next time. Your grape vine is as capricious as a woman, and like a daughter of Eve has its changing moods. We must humour it; but I hope your vignerons will in this respect rid themselves of the vice of imitation I mentioned, and put their products on the market on their own merits, just as the wine growers of the Cape Colony do. You cannot make port in California as they can

in Portugal, nor sherry as they do in Spain, or Madeira as in the island from which it is named. The climate and soil regulate these matters; but you can make California wine, and this in time will carry its own reputation with it."

The Board of State Viticultural Commissioners are doing good work through their executive officer, Mr. Charles A. Wetmore, of San Francisco, in translating and publishing for the use of the vine growers, the best French authorities on the planting, pruning and cultivating the vine. Another subject to which Mr. Wetmore calls the attention of the California wine grower is that of grafting vines of inferior quality (natives) with scions of nobler varieties; also the reconstruction of vineyards attacked by phylloxera, by planting resistant vines grafted with noble varieties. These subjects are explained and discussed very minutely in the Second Annual Report of the Viticultural Board for the years 1882–83, so that we have the satisfacton of knowing that strenuous exertions are making for the improvement of the wine production of California.

VINE — WESTERN STATES.

Vitis Labrusca. (*Linn*). The American wooley leaved or Northern Fox Grape, from busca the Hebrew for grape; berries purple or amber coloured, of harsh flavour and tough pulp. By cultivation it has produced the Catawba, the Isabella, the Concord and many other improved varieties.

Vitis Æstivalis. (*Michaux.*) The Summer Grape; high climbing vines, small black berries; found in Howard county, Missouri; 120 feet high, 20 inches circumference of stem. Virginia Seedling, Herbemont and Taylor Bullit are from V. Æstivalis.

Vitis Cordifolia. (*Michaux*). *Winter* or *Frost Grape;* heart-shaped leaves, harsh fruit. In Howard county, Mo.; 85 feet high, 22 inches circumference of stem.

Vitis Riparia. (*Michaux.*) *River Grape;* sweet scented. A variety of V. Cordifolia; 120 feet high, 27 inches in circumference. In Howard county.

Vitis Vulpina. (*Linn.*) **V. Rotundifolia.** (*Michaux.*) The Southern *Fox* or *Muscadine;* shining leaves coarsely toothed, some times lobed, berries large, with a musky acerb taste; abounds from Maryland to the South; reported by Prof. Swallow; 130 feet high, and 9 inches circumference. In Dunklin county, Mo. The Scuppernong of the South is considered to be a variety of V. Vulpina, which never bears fruit at St. Louis, even with winter protection.

Vitis Cinerea. (*Engelmann.*) The downy leaved grape of the Mississippi Valley. The lamented Dr. George Engelmann lately published a valuable treatise on the Grape Vines of the United States, with a table of drawings of grape seeds, which he found to exhibit some reliable differences as to species. The vine in its native state produces sterile and fertile flowers; the fertile produce fruit without the assistance of the male or sterile flowers. The form of the leaves is extremely variable, nor can much of the distinctive character be made out of the flowers; but the time of flowering is quite a characteristic of our native species. Riparia flowers first and Cinerea last, so the doctor observes, we are not likely to have any grape vines in flower before April 25th, nor after June 20th. Speaking of hybrids: "There is, of course, a good deal of experience and judgment necessary to distinguish what may be a hybrid and what only a variety; and it may be put down as a law that honest nature abhors hybridization."

Wild grapes were found by the early discoverers and explorers of this continent. In 1609 Samuel Champlain, the French colonizer of Canada, announced the indigenous grape vine on the shores of the lake bearing his name, and predicted great results to the French from the cultivation of the vine. Charleroix, in descending the Kankakee, in 1721, near its junction with the Illinois, found grapes the size of musket balls, very ripe but of bad taste, and which he considered the same as those called plum grapes in Louisiana.

The earliest account we have of wine produced on the Mississippi is that of the French settlers at Kaskaskia, made in 1769—one hundred and ten hogsheads of wine from the wild grape. The Swiss colony of Vevay made wine from a native grape in 1800, called Cape grape, after trying to cultivate the European grape (vitis vinifera), in which, as others had, in numerous instances, they failed, from the cause that is now known to have been the phylloxera, an insect that fortunately affects the vines of native origin to a very small extent, while the vitis vinifera is, unfortunately, killed invariably in two or three years.

The European vitis vinifera was considered the only true wine grape, being an abundant bearer and of delicate flavour. In the colonial history of the American States, we find many attempts were made to introduce it for cultivation, plants and vine-dressers being sent from Europe for that purpose. All varieties of the wine grape were tried, and all failed alike when planted east of the Rocky Mountains.

In the late publication of the Bushberg Catalogue, by Messrs. Bush & Son & Meissner, Jefferson county, Mo., Grape Growers and Propagators, much useful information is given in regard to the varieties, propagation and proper mode of culture of the American grape vines.

Catawba and Norton's Virginia are generally considered the best grapes for wine making in Missouri, and notwithstanding late cold springs, mildew, and the rot, good wine is made; while experience and good cellars are effecting great improvement in wine from the Western grape, as art has already in Cook's Imperial produced a sparkling wine that fairly competes with champagne.

Vitis Labrusca has given the following improved varieties: Catawba, Concord, Diana, Hartford Prolific, Iona, Isabella, Ives, Martha, Dracut Amber, Pocklington, Union Village and others.

V. Æstivalis furnishes Eumelon, Herbemont, Norton's Virginia.

V. Riparia, Clinton and Taylor Bullit.

Hybrids claim Delaware, Rogers' Hybrids, and Allen's Hybrids.

It is well known that in some localities many of the best varieties of our native grapes do not succeed on account of their foliage being destroyed more or less by mildew, which is known as peronospora viticola. Its presence may be seen on the upper surface of the foliage, and in clear weather spots of a yellowish tinge become brown coloured, afterwards crisp and dry, and ultimately the leaf is destroyed. It is affirmed that mildew can be obviated by planting the vine on sloping hill sides contiguous to valleys, where dews and excessive moisture are less frequent, as the predisposing cause of this particular species of fungus, is an excess of moisture on the foliage, as the climates where grapes do well are those that are nearly exempt from dews, and, in consequence, nearly all varieties of grapes retain their foliage during the summer.

The disease called the Rot in the fruit, the best evidence shows, is produced by atmospheric influences, for it may be

partially prevented by artificial covering, or covering the bunches in paper bags preserves them from the rot. The grape rot occurs in all kinds of soil, and the nature of the disease, and a remedy, have yet to be ascertained.

Grapevines attacked by the vinelouse phylloxera, have a different appearance from the mildew. Vines thus attacked have a hard, yellow appearance, the growing points of the shoots are thickly tufted with small yellow leaves, and on examination of the roots will reveal the phylloxera, clustering and covering the entire surface. It is possible the vinelouse may be found on the roots of our native species, and show no symptoms of their presence, continuing to grow and bear fruit.

The modes of making wine, so varied in detail in different countries, and yet in the general operations, of expression and fermentation, the same in all, furnish much matter for reflection. It is singular that good wines should be made under such multifarious modes of treatment as are shown in this brief treatise. The process of fermentation is carried on in many different modes, not regulated by locality or climate, and wine of excellent quality is produced under each. It seems difficult to decide which mode is to be preferred. The first requisite to make good wine seems to be a peculiar quality in the soil in which the fruit is grown, more than in the species of vine itself. The second requisite to good wine is to select the species of vine best suited to the soil, aided by a judicious mode of training and cultivation. No wine of tolerable quality is grown on rich, highly dressed land.

In regard to quantity, the average for France is, from authentic records, estimated at 23.39 hectolitres per hectare of land, or 242 gallons of wine per acre; but in the Department of Meurte, in France, the quantity of wine per hectare is never

less than 50 hectolitres. Examples of two hundred are on record: an incredible quantity. Reckoning the hectare at two acres and a half, and the hectolitre at twenty-six gallons, this amounts to upwards of twenty-one hundred gallons for the acre of land. On the other hand, the produce of the fine wines of Burgundy is only ten or twelve hectolitres, or 110 to 130 gallons per acre.

He who has a good cellar well filled cannot too soon make himself acquainted with its management, and with the history of that beverage which, used in due moderation, may be reckoned among the most precious gifts of heaven to the temperate and rational man. Fine wines should be kept in cellars where no motion can affect them, far from vibration or trembling of the earth, or from traffic over granite pavements. They should be as far removed from sewers, and the air of courts, where trades of a bad odour are carried on, as possible. No vinegar must be kept in a wine cellar, and the temperature ought to be unchanged throughout the year. The choice of wine is a very difficult task, especially for the uninitiated. The difficulty is twofold; in the first place, no two persons have the same ideas of the flavour of any particular wine; secondly, the wines of the same vineyard differ in different years. The first object to be attained in choosing good wine is its purity. Whatever be the country from whence it comes, whatever the class, if it be adulterated with anything foreign to its own growth, it ought not to be selected. The higher classes of wine should be transported to the purchaser with great care. The best season for removing the more delicate wines of every kind is the spring and autumn, when the weather is temperate.

A great object in the preservation of wine in the cellar is to keep the bouquet as long as possible, with that agreeable aroma which marks the highest class of wines, and chiefly

met with in those of France. This is the characteristic of the fine wines, and in some degree of all wines of the first quality which are pure, though in the secondary sorts it is less perceptible. Wines lose their bouquet by being kept too long. Mere age is no criterion of the excellence of wine, though a certain age is necessary to carry it to the state when it is best for the table.

The characteristic bouquet of the finest and best wines can not be imitated or the delicacy transferred. They are unrivalled in their nature. When we taste them we drink

"The very blood of the earth,"

as Alexander the Great said to Androcydes. A taste may easily be imparted to wine by artificial means, but this cannot deceive the palate well acquainted with what is genuine.

IMPORTS OF WINE.

From the United States Custom House Reports, 1872.

Import of wine in casks, 9,484,000 gals. - - value, $3,290,000
" bottles, 430,000 " - - " 2,754,000

From which it appears that the cost of wine imported in casks was about 35 cents per gallon, and in bottles about $6.35 per dozen.

TEMPERATE USE OF WINE.

Adam Smith, in his "Wealth of Nations," says the cheapness of wine seems to be a good cause, not of drunkenness, but of sobriety. The inhabitants of the wine countries are in general the soberest people of Europe; witness the Spaniards, the Italians and the inhabitants of the southern provinces of

France. The true enjoyer of wine finds it exhilarates the spirits, increases the memory, and promotes cheerfulness. He who would destroy good wine by taking it when its flavour is no longer fresh to the palate, is a drunkard; he knows nothing of rational enjoyment, which consists in moderation. As the odour of the rose deadens upon the sense after the first exhalation, so it is with wine, and all our enjoyments.

The best test against sophisticated or adulterated wines is a perfect acquaintance with that which is good. They who commend the purple draught for the warmth it imparts to the stomach, which has been perhaps for years at a temperature of 120° of Fahrenheit, can only value it as it stimulates the over-excited organ. Swallowers of cognac and capsicum, proof whisky and similar fiery liquids, will purchase sophisticated wine; but by those who relish the healthful glass that cheers without inebriation — that enlivens conversational ideas, and kindles social friendship, without passing the limits of well regulated enjoyment; who find in the juice of the grape those virtues, which a proper and temperate participation in the benevolent gifts of providence, and enjoy those gifts with a rational and manly moderation.

MISSOURI BOTANICAL GARDEN
HENRY SHAW PAPERS